

## ClustalW Formatted Alignments

	10	20	30	40	50
Yeast (YNR008W)	M	G	T	L	F
Human TCAT	R	R	N	V	Q
	N	Q	K	S	D
	S	D	E	N	K
	G	S	V	H	N
	K	R	E	S	R
	N	H	I	H	H
	Q	Q	G	L	G
	H	K	R	R	R
	G	I	S		

Yeast (YNR008W) G S A K R N E R G K D F D R K K R D G N G R K R W R D S R R L I F I L G A F L C V L L P A T W F S F G A Y H  
Human LCAT - - - - - L L L G L L P P A I L V V V L L N V L  
AILCAT1 - - - - - L L L G L L P P A I L V V V L L N V L  
AILCAT2 - - - - - M K K - - - J I S S H Y S I V V I A I L V V V L L T M V L  
AILCAT3 - - - - - M G A N S K - - - S V T A S F T V I A V F F L I C G C R N  
AILCAT4 - - - - - M S L - - - L L E E I I R S V E A L L K L R N R N

	110	120	130	140	150
Yeast (YNR2008M)	VHNSDSDLFD	NFVNFDSL	KVYLD	DWKDV	QGISSFI
Human LCAT	PPHETTPKAE	LSN	HTR	PIVLYFGCL	DIQA
ALCAT1	MCQAVGSNVY		KLHUNFGNG		STSS
ALCAT2	TAVEDETEFHGDY		SKLSG	IIIPGFA	
ALCAT3	QEPYVDFPNLN		PIVLYFGIA		
ALCAT4	ENAGEVADR		PIVLYSGIG		
			PVILVPG		

FIG. 1B

REPLACEMENT SHEET

Applicant: Michael Lasser  
Serial No.: 09/651,651  
Filed: 30 August 2000

Yeast (YNR008W)	160	170	180	190	200
Human LCAT	DLSENFAV	GKQLLR	AKHP	VVMVPGVISTGI	ESWGVIGDD
ALCAT1	---	GKQLLR	AKHP	VVMVPGVISTGI	ESWGVIGDD
ALCAT2	---	GKQLLR	AKHP	VVMVPGVISTGI	ESWGVIGDD
ALCAT3	---	GKQLLR	AKHP	VVMVPGVISTGI	ESWGVIGDD
ALCAT4	---	GKQLLR	AKHP	VVMVPGVISTGI	ESWGVIGDD

Yeast (YNR008W)	210	220	230	240	250
Human LCAT	ECDS	SAHFRKRL	WGSEFYML	LRMTM	YVNRSSG
ALCAT1	---	SAHFRKRL	WGSEFYML	LRMTM	YVNRSSG
ALCAT2	---	SAHFRKRL	WGSEFYML	LRMTM	YVNRSSG
ALCAT3	---	SAHFRKRL	WGSEFYML	LRMTM	YVNRSSG
ALCAT4	---	SAHFRKRL	WGSEFYML	LRMTM	YVNRSSG

Yeast (YNR008W)	260	270	280	290	300
Human LCAT	YSGVEY	YSGVEY	YSGVEY	YSGVEY	YSGVEY
ALCAT1	---	YSGVEY	YSGVEY	YSGVEY	YSGVEY
ALCAT2	---	YSGVEY	YSGVEY	YSGVEY	YSGVEY
ALCAT3	---	YSGVEY	YSGVEY	YSGVEY	YSGVEY
ALCAT4	---	YSGVEY	YSGVEY	YSGVEY	YSGVEY

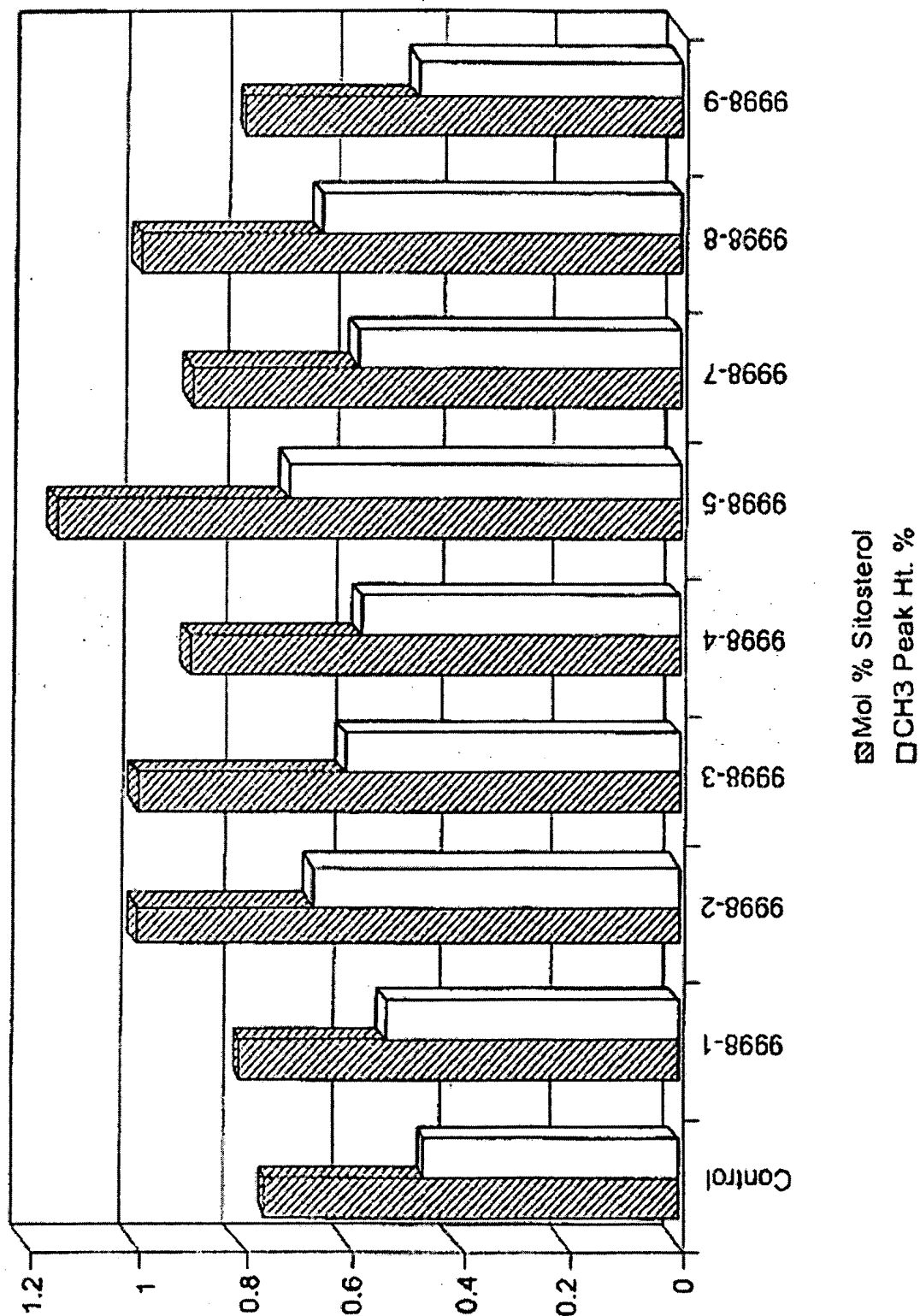
**FIG. 10**

Applicant: Michael Lassner  
Serial No.: 09/651,651  
Filed: 30 August 2000

360	370	380	390	400
Yeast (YVR008M)	Human LCAT	ALCAT1	ALCAT2	ALCAT3
ALCAT4				
M	M	M	M	M
L	L	L	L	L
K	K	K	K	K
W	W	W	W	W
V	V	V	V	V
E	E	E	E	E
A	A	A	A	A
E	E	E	E	E
G	G	G	G	G
P	P	P	P	P
L	L	L	L	L
Y	Y	Y	Y	Y
G	G	G	G	G
N	N	N	N	N
G	G	G	G	G
C	C	C	C	C
A	A	A	A	A
P	P	P	P	P
L	L	L	L	L
E	E	E	E	E
I	I	I	I	I
A	A	A	A	A
P	P	P	P	P
K	K	K	K	K
R	R	R	R	R
R	R	R	R	R
K	K	K	K	K
L	L	L	L	L
D	D	D	D	D
P	P	P	P	P
S	S	S	S	S
F	F	F	F	F
I	I	I	I	I
N	N	N	N	N
A	A	A	A	A
L	L	L	L	L
S	S	S	S	S
L	L	L	L	L
G	G	G	G	G
A	A	A	A	A
P	P	P	P	P
K	K	K	K	K
A	A	A	A	A
V	V	V	V	V
P	P	P	P	P
K	K	K	K	K
A	A	A	A	A
V	V	V	V	V
L	L	L	L	L
V	V	V	V	V
L	L	L	L	L
A	A	A	A	A
L	L	L	L	L
S	S	S	S	S
G	G	G	G	G
C	C	C	C	C
A	A	A	A	A
P	P	P	P	P
L	L	L	L	L
E	E	E	E	E
I	I	I	I	I
A	A	A	A	A
P	P	P	P	P
K	K	K	K	K
R	R	R	R	R
R	R	R	R	R
K	K	K	K	K
L	L	L	L	L
D	D	D	D	D
P	P	P	P	P
S	S	S	S	S
F	F	F	F	F
I	I	I	I	I
N	N	N	N	N
A	A	A	A	A
L	L	L	L	L
S	S	S	S	S
L	L	L	L	L
G	G	G	G	G
A	A	A	A	A
P	P	P	P	P
K	K	K	K	K
A	A	A	A	A
V	V	V	V	V
L	L	L	L	L
V	V	V	V	V
L	L	L	L	L
A	A	A	A	A
L	L	L	L	L
S	S	S	S	S
G	G	G	G	G
C	C	C	C	C
A	A	A	A	A
P	P	P	P	P
L	L	L	L	L
E	E	E	E	E
I	I	I	I	I
A	A	A	A	A
P	P	P	P	P
K	K	K	K	K
R	R	R	R	R
R	R	R	R	R
K	K	K	K	K
L	L	L	L	L
D	D	D	D	D
P	P	P	P	P
S	S</			

	410	420	430	440	450	
Yeast (YMR008W)	T I Q L N T L A M Y C L L E K F F S R I E R V K - M L Q T W C G I P S M L P K G - E E V I W G D M	- - - - - Q C I P I M S S I K L K E - - - - - E Q R I T T S P - - - - - W M F -	- - - - - L C V P L V N P L L V R R - - - - - H Q R T S E S N Q - - - - - W L L -	- - - - - E G T A R L L S N S F A S S L W L M P F S K N C K G - - - - - D N T S M T H F	- - - - - N C W E Q N F F V S R K W S - - - - - M H Q L L I E C P S I Y E L M C C P Y F K W E E L P	- - - - - E G L E S F F F V S R W T - - - - - M H Q L L V E C E S I Y E M M A N P D F K W K K Q
Human LCAT	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	
ALCAT1	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	
ALCAT2	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	
ALCAT3	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	
ALCAT4	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	

FIG. 2



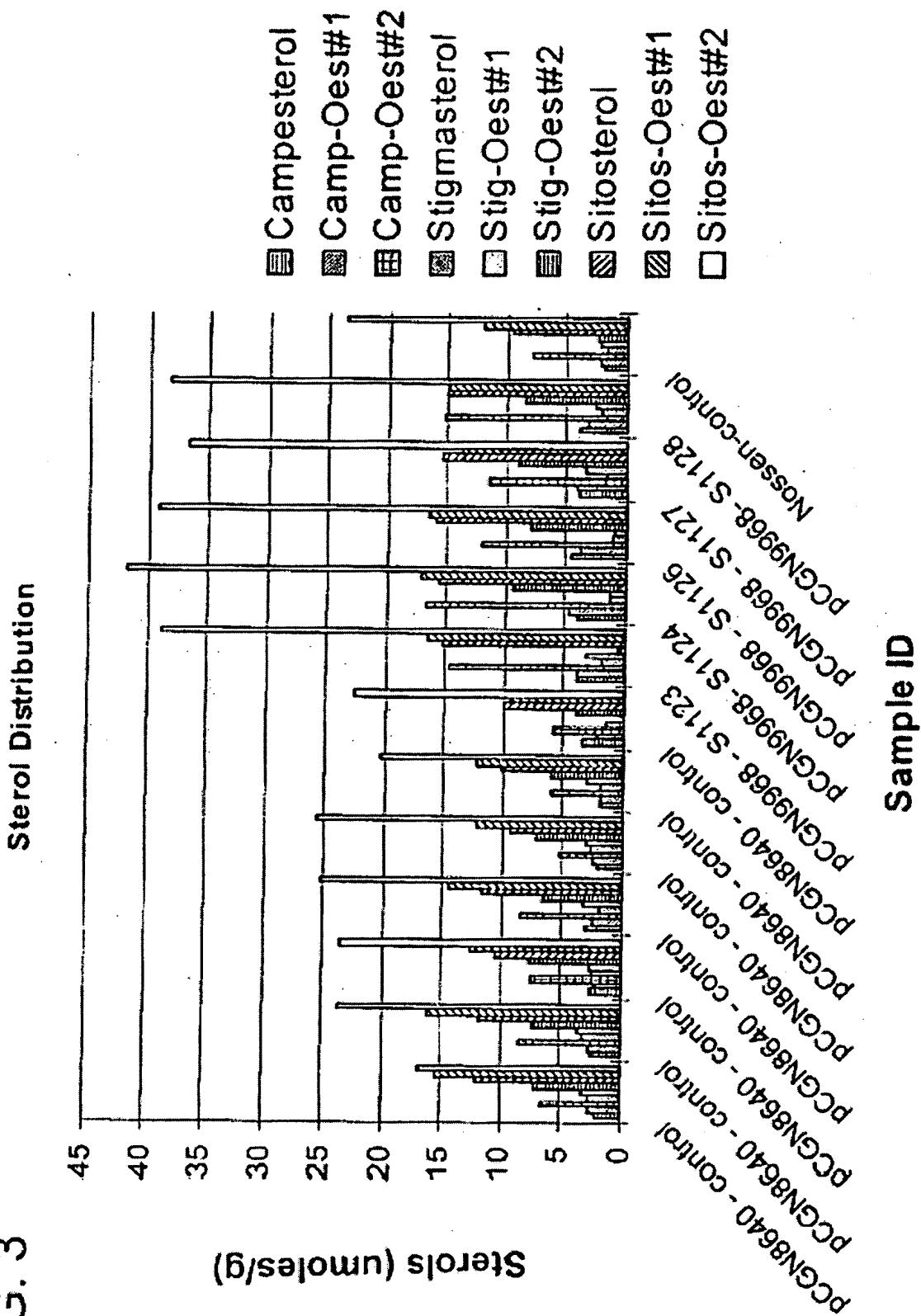


FIG. 4

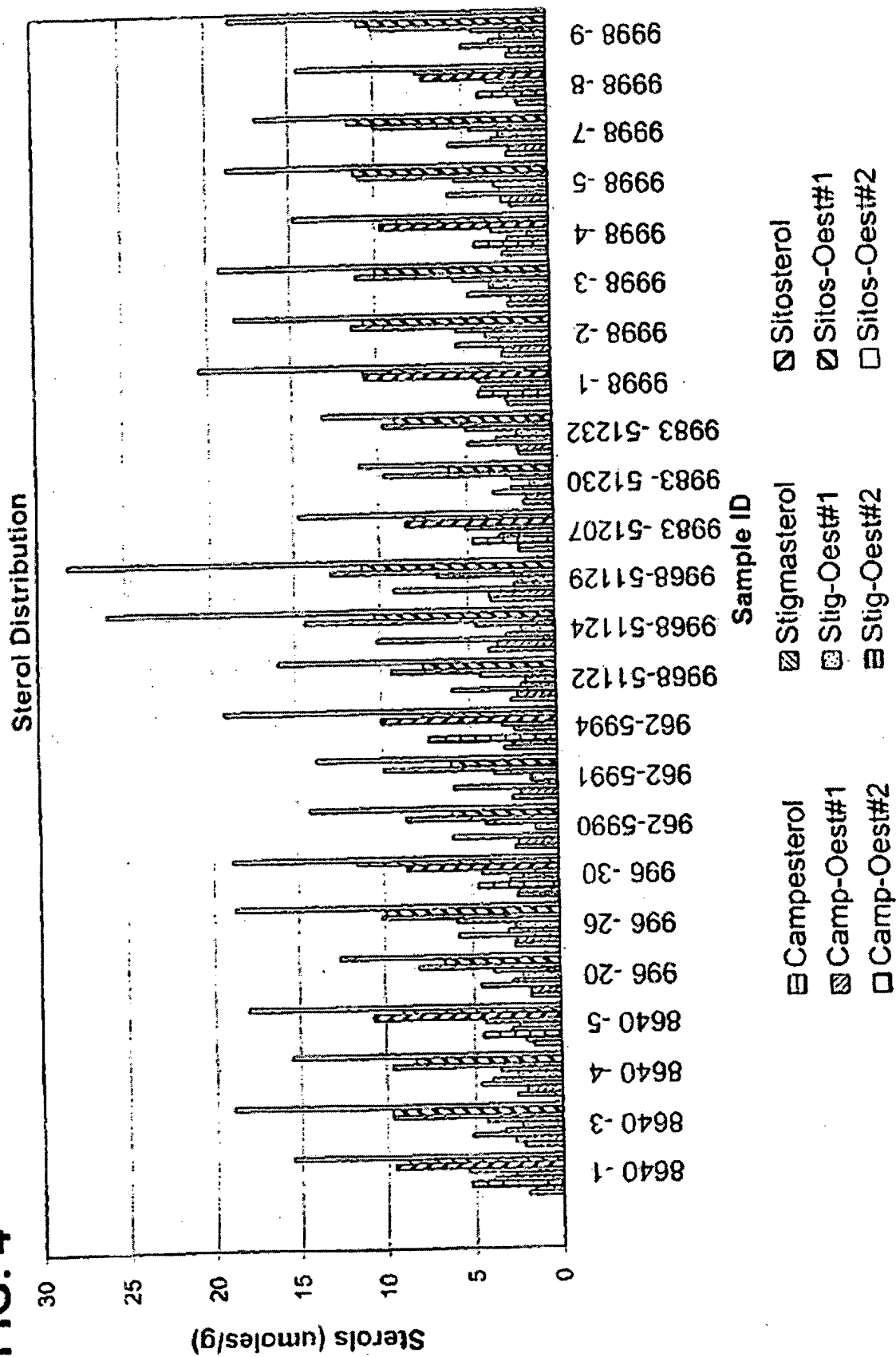


FIG. 5

NIR Analysis of LCAT

